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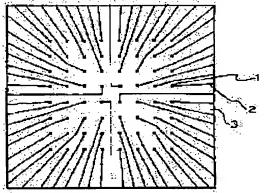
TAKEYA MAKOTO

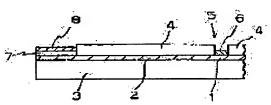
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(54) UNIFIED COMPLEX ELECTRODE

(57)Abstract:

PURPOSE: To make it possible to cultivate neurocytes and to realize simultaneous multipoints measurement of electric activity of the neurocytes by forming the unified complex electrode to have the specific area of electrode and the specific surface resistance of electrode part. CONSTITUTION: This unified complex electrode has the plural number of electrodes 1 that have mutually the same interval between the nearest electrodes on the insulated board 3, and the wiring part is formed by wiring lead line 2 from electrode 1 nearly radially. The insulating layer 4 covering the lead line 2 is formed, the electrode area is set as $\geq 3 \times 2\mu m$ and $\leq 4 \times 104\mu m$, and the surface resistance of the electrode part is set as $\leq 10\Omega/\text{cm}2$. In the unified complex electrode, distance between the nearest electrodes is set as ≥10μm and ≤1000μm. In addition, the insulating layer 4 covering the lead line 2 has a dent n each electrode, and is formed on almost all the surface of the insulating board 3 except the region near to the contact point of lead line 2 with their outer





circuit. In addition, the plural number of electrode centers are set at each crossing point of the grid that is composed of 8×8 .

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